

FIGURE 1

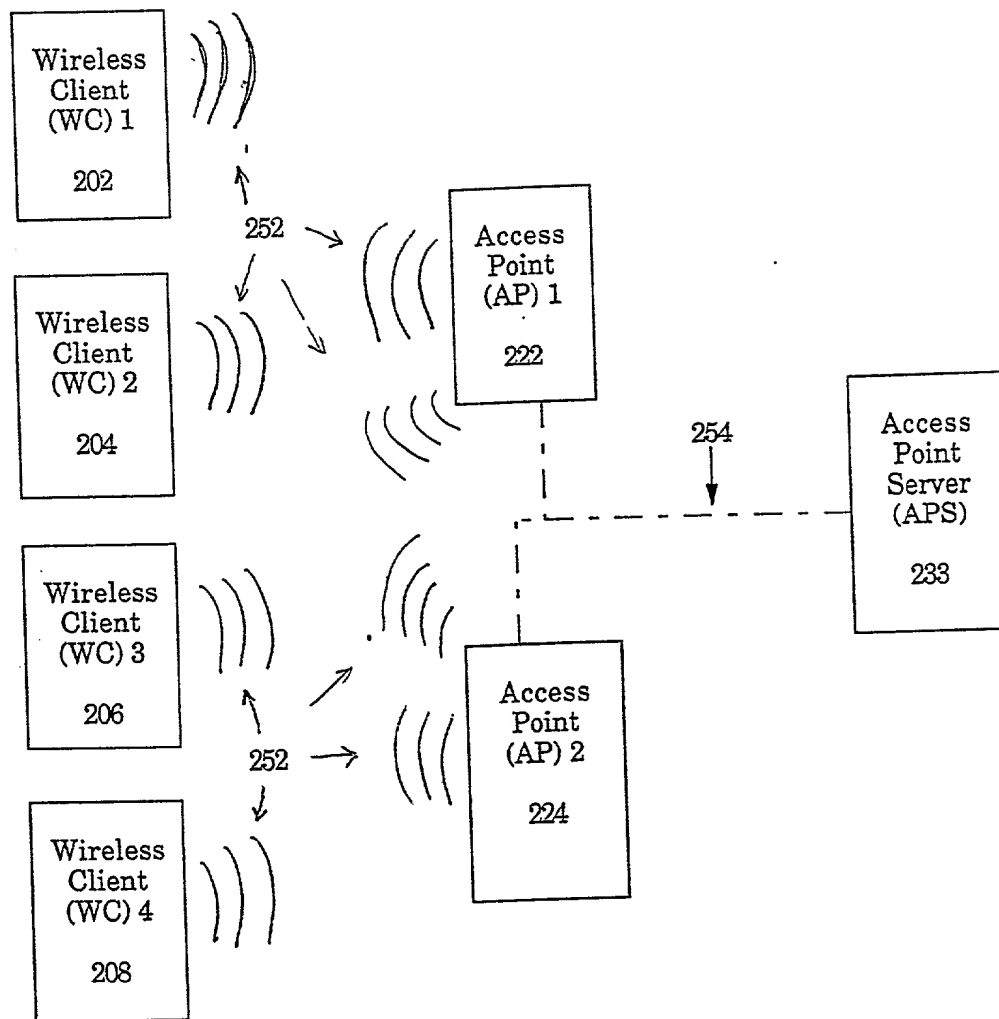


FIGURE 2

300

Wireless Client
(WC 1) 202

Access Point
(AP 1) 222

Access Point Server
(APS) 233

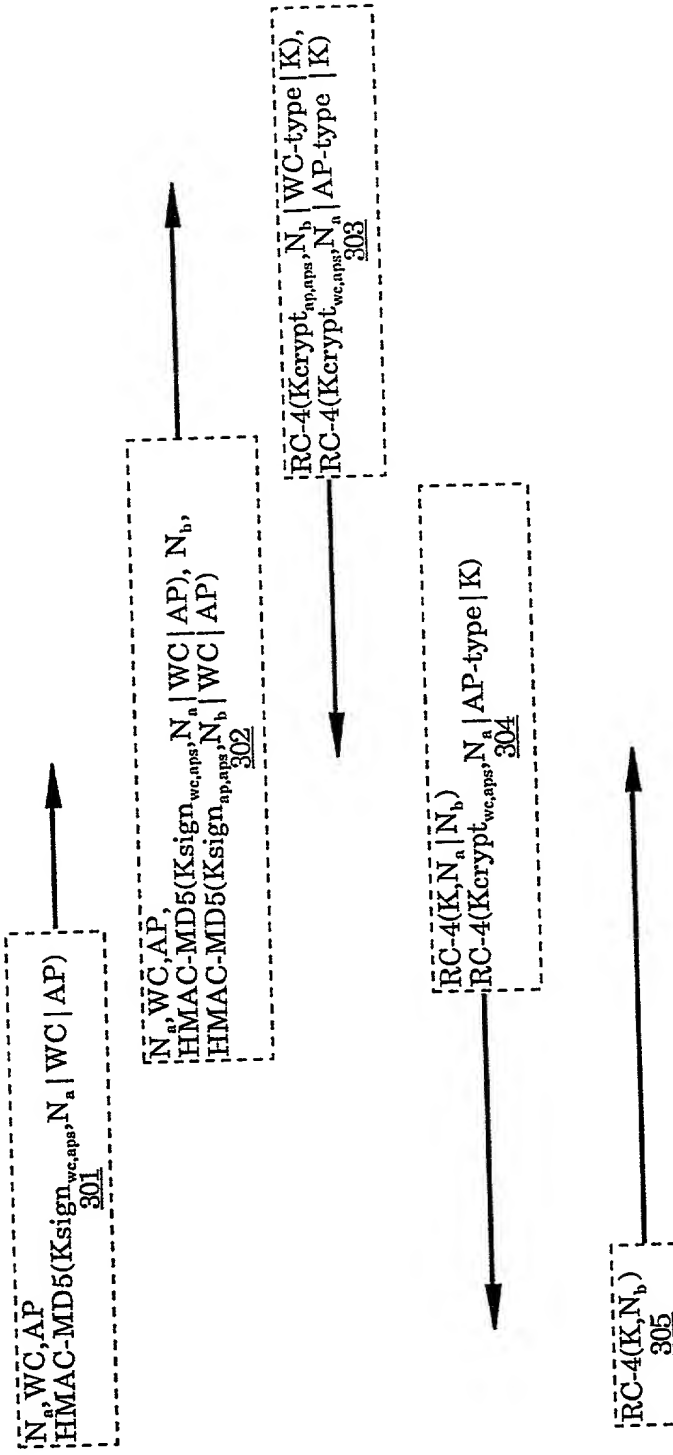


FIGURE 3

400

Start

Access point 222 receives a first message from wireless client 202. The message contains values for a random number and information identifying the wireless client and the access point and an authentication code of the information signed using a signing key, e.g., message 301 of Figure 3.

405

Access point 222 generates a second message which contains second values for another random number and information identifying the access point and the wireless client and another authentication code of the information signed using another signing key.

410

Access point 222 sends the message received from the wireless client (Step 405) and the message it generated (in Step 410) to access point server 223 in a combined message, e.g., message 302 of Figure 3.

415

Access point server 233 verifies the contents of message 302 and then generates a session key using the first and second values and third values which are provided by access point server 233, such that processing is shared by the access point and the access point server.

420

Access point 222 receives from access point server 233 a third message. The third message, e.g., message 303 of Figure 3, conveys the session key and also contains a first portion and a second portion. Access point 222 verifies the second portion of the third message against the second values it sent in the second message.

425

Access point 222 sends a fourth message to wireless client 202. The fourth message, e.g., message 304 of Figure 3, contains the session key and the first portion of the message it received from access point server 233 in the third message, e.g., message 303 of Figure 3. Wireless client 202 verifies the first portion against the first values it sent in the first message, such that the session key is shared between the wireless client and the access point and the access point server.

430

Access point 222 receives from wireless client 202 a message verifying the session key is properly distributed, e.g., message 305 of Figure 3.

435

FIGURE 4